

WHAT IS CLAIMED IS:

1. A magneto-optical recording medium comprising:  
a substrate;

5 a first soft magnetic layer formed on the  
substrate;

a cured resin layer formed on the first soft  
magnetic layer having a pre-groove pattern on a surface to  
a back of the cured resin layer contacting with the first  
10 soft magnetic layer;

a recording reproduction layer formed on the cured  
resin layer; and

a protective film layer formed on the recording  
reproduction layer,

15 wherein the magneto-optical recording medium  
receives an irradiation of a light for recording  
reproduction and a supply of a magnetic field from a side  
of the protective film layer, and

wherein a ratio  $(Bs_2 \times t_2 / Bs_1 \times t_1)$  of a product  
20  $Bs_2 \times t_2$  to a product  $Bs_1 \times t_1$  is not less than 0.2, where  
 $t_1$  denotes a film thickness of a second soft magnetic layer  
constituting a recording head for supplying the magnetic  
field to the magneto-optical recording medium, the  
recording head having a magnetic field generating coil,  $Bs_1$   
25 denotes a saturation magnetic flux density of the second  
soft magnetic layer,  $t_2$  denotes a film thickness of the  
first soft magnetic layer, and  $Bs_2$  denotes a saturation

magnetic flux density of the first soft magnetic layer.

2. A magneto-optical recording medium comprising:

a substrate;

5 a first soft magnetic layer formed on the  
substrate;

a cured resin layer formed on the first soft  
magnetic layer having a pre-groove pattern on a surface to  
a back of the cured resin layer contacting with the first  
10 soft magnetic layer;

a recording reproduction layer formed on the cured  
resin layer; and

a protective film layer formed on the recording  
reproduction layer,

15 wherein the magneto-optical recording medium  
receives an irradiation of a light for recording  
reproduction and a supply of a magnetic field from a side  
of the protective film layer, and

wherein the first soft magnetic layer is formed by  
20 a metallic foil.

3. A magneto-optical recording medium according  
to claim 1, wherein the first soft magnetic layer is formed  
by a metallic foil.

25

4. A magneto-optical recording medium according  
to claim 2, wherein the metallic foil constituting the

first soft magnetic layer is put on the substrate.

5        5.    A magneto-optical recording medium according  
to claim 3, wherein the metallic foil constituting the  
first soft magnetic layer is put on the substrate.

10       6.    A magneto-optical recording medium according  
to claim 2, wherein the metallic foil constituting the  
first soft magnetic layer is formed in a united body with  
the substrate.

15       7.    A magneto-optical recording medium according  
to claim 3, wherein the metallic foil constituting the  
first soft magnetic layer is formed in a united body with  
the substrate.

20       8.    A magneto-optical recording medium according  
to claim 1, wherein the substrate has a preventing  
structure for preventing the cured resin layer from going  
out from the first soft magnetic layer when the cured resin  
layer is in a non-cured state.

25       9.    A magneto-optical recording medium according  
to claim 2, wherein the substrate has a preventing  
structure for preventing the cured resin layer from going  
out from the first soft magnetic layer when the cured resin  
layer is in a non-cured state.

10. A magneto-optical recording medium according to claim 1, wherein the first soft magnetic layer includes a FeNi magnetic material.

5

11. A magneto-optical recording medium according to claim 2, wherein the first soft magnetic layer includes a FeNi magnetic material.

10

12. A magneto-optical recording medium according to claim 1, wherein the first soft magnetic layer includes a CoZrNb magnetic material.

15

13. A magneto-optical recording medium according to claim 2, wherein the first soft magnetic layer includes a CoZrNb magnetic material.

20

14. A magneto-optical recording medium according to claim 1, wherein the first soft magnetic layer is coated on the substrate.